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Fuel Cell Connection
September 2000 Issue
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RFP/Solicitation News
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1. SECA Draft Solicitation on SOFCs

National Energy Technology Laboratory and the Solid State Energy Conversion Alliance (SECA) have issued a Draft Program Solicitation for development of a total of three solid oxide fuel cell systems (3kW-10kW) that are broadly applicable to mobile, stationary, and military applications. Comments on the draft are due no later than October 11, 2000. According to the draft, the anticipated Government funding per team per year is approximately $5 million, and the number of teams will be determined at the discretion of the Government. Funds are not currently available for this solicitation, and the Government's obligation under any cooperative agreement awarded is contingent upon the availability of appropriated FY2001 funds.
http://www.netl.doe.gov/business/solicit/2000pdf/40854/40854d.pdf

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News on U.S. Government Fuel Cell Programs
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2. DOE & IFC Announce Gasoline Fuel Cell System

Department of Energy (DOE) Secretary Richardson announced the development of a 50-kilowatt gasoline fueled fuel cell system by International Fuel Cells, in partnership with DOE, for use in an automobile. The power plant is scheduled for delivery to DOE in October.
http://www.internationalfuelcells.com/library/archive/092100.shtml

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3. Hydrogen Storage "Breakthrough" Achieved

A team of researchers from Lawrence Livermore National Laboratory, IMPCO and Thiokol, developed a cylinder that achieves a record 11.3% hydrogen storage by weight. The cylinder stores compressed gaseous hydrogen. IMPCO's is designing the tank technology for maximum operation pressures of 350 Bar with a safety factor of 2.25.

http://finance.individual.com/display_news.asp?doc_id=PR20000912LATU090&page=quotes&ticker=IMCO

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4. Fuel Cells Most Efficient DG Technology, Says EIA

By 2020, fuel cells will overtake all other forms of distributed generation, including gas turbines, in the number of BTUs/kW hours produced, according to the Energy Information Administration (EIA)'s new report, "Modeling Distributed Electricity Generation in the NEMS Buildings Models." Also according to the forecast, fuel cells are and will continue to be the most efficient of all distributed generation technologies. Installed costs of DG fuel cells and photovoltaics are expected to dramatically decrease (by 52% and 56%, respectively) to US$1,725/kW and US$2,426/kW, respectively (1998 US dollars). However, the prospects for photovoltaics as distributed generation are fading as the report predicts the technology will continue to have the highest installed cost and the lowest efficiency of the DG technologies. The report projects that by 2020, PVs will fare only slightly better than the last place technology, the gasoline engine.
http://www.eia.doe.gov/oiaf/analysispaper/pdf/distgen.pdf

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Contract Awards

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5. Fuel Cell Fuel Projects Chosen for Ultra-Clean Fuels Initiative

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Two of the eight projects chosen in the first round of the Ultra-Clean Fuels Initiative focus on the development of fuels that will be tested in advanced vehicle propulsion systems, including fuel cell systems. DOE awarded a total of $28 million to the two projects, whose team members include Praxair, BP/Amoco, Nuvera Fuel Cells, Air Products and Chemicals, International Fuel Cells, and Cummins Engine Company.
http://www.fe.doe.gov/techline/tl_ultraclean_selection1.html

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6. DOE/State Partnership to Demonstrate Fuel Cells

The DOE will award $481,604 to the Ohio Department of Development for the development and demonstration of solid oxide fuel cells as CHP technology for homes and businesses. The state will provide a 20 percent match.
http://home.doe.gov/news/releases00/seppr/pr00232.htm

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7. Project to Demonstrate Fuel Cell Using Coal Mine Methane

FuelCell Energy has been awarded $2.68 million in funding from the National Energy Technology Laboratory to demonstrate its 250kW Direct Fuel Cell power plant running on coal mine methane emissions from a mine in Cadiz, Ohio.
http://www.fe.doe.gov/techline/tl_coalmine1.html

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8. PEM Project Gets Funding from Buildings Program

Arthur D. Little is receiving $709,545 from the DOE Energy Efficient Buildings Program to continue its development of stationary PEM fuel cell technology for cogeneration. The program is one of 18 research and development projects receiving $8.4 million in Phase I funding.
http://www.doe.gov/news/releases00/seppr/pr00229.htm

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9. SAIC Distributed Generation Model to Include Fuel Cells

Science Applications International Corporation has received a $79,000 award from DOE to develop and disseminate a computer-based application called “Cost Analysis and Environmental Impact of Distributed Generation Technologies,” which will include fuel cells, microturbines and conventional engine generators.
http://www.doe.gov/news/releases00/seppr/pr00228.htm

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10. Mining Industry of the Future Funds Fuel Cell Program

Fuelcell Propulsion Institute’s project to explore “Foundations of Fuelcell Power and Automated Control” is one of 16 programs selected for funding through the Mining Industry of the Future Program of the DOE Office of Industrial Technologies. The Institute and its team – which includes H Power Corporation, Sandia National Laboratory, and Mining Technologies International – will receive $145,000 from DOE.
http://www.oit.doe.gov/mining/sep00pr.shtml

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Environmental/Energy Legislation
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11. ARB Maintains ZEV Mandate

After listening to two-days of testimony, the 11-member California Air Resources Board unanimously decided to keep the ZEV mandate in place, requiring that 10 percent of all vehicles sold in the state beginning in 2003 be zero-emission

vehicles. Accumulated credits will reduce the actual number of ZEV's in 2003 to about 22,000. Negotiations with the auto industry on implementation have already begun.
http://www.arb.ca.gov/newsrel/nr090800.htm

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Industry Headlines
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12. Big Names Form Team for Methanol Fuel Cell Vehicles

DaimlerChrysler AG, BP, BASF, Methanex, Statoil and XCELLSIS have entered into a cooperation agreement to evaluate what is needed to facilitate the introduction and commercialization of methanol fuel cell vehicles.
http://www.newswire.ca/releases/September2000/12/c2517.html

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13. IdaTech Proceeds With Fuel Cell Beta Program

Following the completion of testing of 10 alpha units, Bonneville Power Administration has authorized IdaTech to proceed with the design and production of the first block of 50 beta fuel cell systems for residential power, for testing in 2001.
http://www.idatech.com/press/press22.html

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14. IFC and Shell Form Fuel Processing Joint Venture

International Fuel Cells and Shell Hydrogen US have established a 50-50 joint venture company to develop, manufacture, and sell fuel processors for fuel cell and hydrogen markets. Shell may also sell other IFC products.
http://www.internationalfuelcells.com/library/archive/091900.shtml

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15. H Power Introduces 250-Watt Fuel Cell System

H Power is offering the Power Pem® PS250, a 250-watt portable fuel cell system that is available in both mobile and "rack-mounted" models for use in small EVs or as backup/portable power.
http://www.hpower.com/NEWS%20ps250.html

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16. Texaco Teams with Energy Conversion Devices

Texaco and Energy Conversion Devices have formed Texaco Ovonic Fuel Cell Company, L.L.C., to develop and advance the commercialization of the Ovonic Regenerative Fuel Cell. Texaco will invest a reported $40 million.
http://texaco.com/shared/pr/2000pr/pr9_21/html

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17. EAC to Produce 20,000 FC/Battery Vehicles in 2002-2003

Electric Auto Corporation has announced it plans to build 20,000 “SILVER VOLT” sport utility vehicles, featuring alkaline fuel cells and lead-cobalt batteries, in 2002-2003. EAC says the vehicles will be priced competitively with today’s gasoline-engine SUVs.
http://www.nrglink.com/pressreleases/pr090500elecauto.html

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18. Contest Offers Students Chance to Ride in Fuel Cell Car

California students in grades 7-12 can win a ride in a fuel cell car thanks to an essay contest sponsored by the California Fuel Cell Partnership. Six winners will be chosen based on essays expressing why fuel cell vehicles are an important future technology.
http://www.fuelcellpartnership.org/releases/2000-9-11_news_release.htm

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Press releases and story ideas may be forwarded to Bernadette Geyer, editor, for consideration at mailto:bernie@fuelcells.org.

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About *Fuel Cell Connection*
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The Sponsors

U.S. Fuel Cell Council -- The U.S. Fuel Cell Council is the business association for anyone seeking to foster the commercialization of fuel cells in the United States. Our membership includes producers of all types of fuel cells, as well as major suppliers and customers. The Council is member driven, with five active Working Groups focusing on: Codes & Standards; Transportation; Power Generation; Portable Power; and Education & Outreach. The Council provides

its members with an opportunity to develop policies and directions for the fuel cell industry, and also gives every member the chance to benefit from one-on-one interaction with colleagues and opinion leaders important to the industry. Members also have access to exclusive data, studies, reports and analyses prepared by the Council, and access to the "Members Only" section of its web site.
(http://www.usfcc.com/)

National Fuel Cell Research Center -- The mission of the NFCRC is to promote and support the genesis of a fuel cell industry by providing technological leadership within a vigorous program of research, development and demonstration. By serving as a locus for academic talent of the highest caliber and a non-profit site for the objective evaluation and improvement of industrial products, NFCRC's goal is to become a focal point for advancing fuel cell technology. By supporting industrial research and development, creating partnerships with State and Federal agencies, including the U.S. Department of Energy (DOE) and California Energy Commission (CEC), and overcoming key technical obstacles to fuel cell utilization, the NFCRC can become an invaluable technological incubator for the fuel cell industry.
(http://www.nfcrc.uci.edu/)

National Energy Technology Laboratory -- The National Energy Technology Laboratory is federally owned and operated. Its mission is *"We Solve National Energy and Environmental Problems."* NETL performs, procures, and partners in technical research, development, and demonstration to advance technology into the commercial marketplace, thereby benefiting the environment, contributing to U.S. employment, and advancing the position of U.S. industries in the global market.
(http://www.netl.doe.gov)